# S.Y.B.S.C (C.S.) - COMP-I -SEM-IV -75 - 2<sub>1/2</sub>HRS - PG\_ **VCD**

1) Diagrams should be Neat and labeled. NOTE:

2) All Questions are compulsory.

3) Right side indicates marks.

## Attempt any four. Q.1)

[20]

- 1. Write a short note on OS services.
- 2. State and explain different types of system call.
- 3. Explain multithreading model.
- 4. Describe Layered approach.
- 5. Define cooperative Processes. Explain its four benefits
- 6. Explain Five State Process Model with a neat diagram.
- 7. Explain Is command with options
- 8. Explain ps command in linux

#### Attempt any four. Q.2)

[20]

- 1. Write short note on monitor.
- 2. Write a short note on Semaphore
- 3. write a script to perform mathematics operations.
- 4. Write a script to- Redirecting Output and Redirecting Input in Scripts
- 5. Define deadlock. Explain conditions of deadlock.
- 6. Depict the Gantt chart for FCFS and SJF for the following and find the following and find average waiting time:

Process	CPU Butst Time	Arrival Time
P1	07	0
P2	03	2
P3	05	2
P4	08	2
P5	07	3
P6	09	3

- 7. How we can recover deadlock? Explain in detail.
- 8. Explain RR scheduling with example.

### Attempt any four. Q.3)

[20]

- 1. Write short note on Virtual memory.
- 2. Write a short note on Segmentation.
- 3. Explain the read command with option and suitable example
- 4. Explain in brief single-level and two-level directory structure.
- 5. Explain FIFO algorithm with example.
- 6. Explain CASE structure in linux.
- 7. Explain 1) if...then 2) for loop in linux with example
- 8. Create a script to find out largest no of two nos.

# Q.4) Attempt any three.

1. For the following page reference string calculate number of page faults with OPT String: 5 3 2 1 3 4 5 1 2 3 4 5 3 2 4.

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- 2. Explain data files commands in linux
- 3. Explain chmod command.
- 4. Briefly explain different file operations.
- 5. Explain the linux architecture.
- 6. Write a short note on Linux File System.